SEQUENCE LISTING

<110> Lovenberg, Timothy
Liu, Changlu

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<150> 09/790,849
<151> 2001-02-22

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<151> 2000-05-31

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Asp Phe Gly Lys Glu Ile Cys Val Phe Trp Leu Thr Thr Asp Tyr Leu
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            100                 105                 110

Tyr Leu Ser Val Ser Asn Ala Val Ser Tyr Arg Thr Gln His Thr Gly
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Val Leu Lys Ile Val Thr Leu Met Val Ala Val Trp Val Leu Ala Phe
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Gly Ser Glu Cys Glu Pro Gly Phe Phe Ser Glu Trp Tyr Ile Leu Ala
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            180                 185                 190

Phe Asn Met Asn Ile Tyr Trp Ser Leu Trp Lys Arg Asp His Leu Ser
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Arg Cys Gln Ser His Pro Gly Leu Thr Ala Val Ser Ser Asn Ile Cys
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225                 230                 235                 240

Ser Thr Glu Val Pro Ala Ser Phe His Ser Glu Arg Gln Arg Arg Lys
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Ala Ser Lys Met Gly Ser Phe Ser Gln Ser Asp Ser Val Ala Leu His
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Leu Phe Thr Ile Val Leu Ser Phe Tyr Ser Ser Ala Thr Gly Pro Lys
325 330 335

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Val Asn Pro Leu Leu Tyr Pro Leu Cys His Lys Arg Phe Gln Lys Ala
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aattttggaa gtggaatctg catgttttgg ctcattactg actatctttt gtgcaccgca 300

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Gly Leu Ile Ser Ile Pro Leu Tyr Ile Pro His Val Leu Phe Asn Trp
65                  70                  75                  80

Asn Phe Gly Ser Gly Ile Cys Met Phe Trp Leu Ile Thr Asp Tyr Leu
                85                  90                  95

Leu Cys Thr Ala Ser Val Tyr Asn Ile Val Leu Ile Ser Tyr Asp Arg
            100                 105                 110

Tyr Gln Ser Val Ser Asn Ala Val Ser Tyr Arg Ala Gln His Thr Gly
        115                 120                 125

Ile Met Lys Ile Val Ala Gln Met Val Ala Val Trp Ile Leu Ala Phe
    130                 135                 140

Leu Val Asn Gly Pro Met Ile Leu Ala Ser Asp Ser Trp Lys Asn Ser
145                 150                 155                 160

Thr Asn Thr Lys Asp Cys Glu Pro Gly Phe Val Thr Glu Trp Tyr Ile
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Leu Thr Ile Thr Met Leu Leu Glu Phe Leu Leu Pro Val Ile Ser Val
            180                 185                 190

Ala Tyr Phe Asn Val Gln Ile Tyr Trp Ser Leu Trp Lys Arg Arg Ala
        195                 200                 205

Leu Ser Arg Cys Pro Ser His Ala Gly Phe Ser Thr Thr Ser Ser Ser
    210                 215                 220

Ala Ser Gly His Leu His Arg Ala Gly Val Ala Cys Arg Thr Ser Asn
225                 230                 235                 240

Pro Gly Leu Lys Glu Ser Ala Ala Ser Arg His Ser Glu Ser Pro Arg
                245                 250                 255

Arg Lys Ser Ser Ile Leu Val Ser Leu Arg Thr His Met Asn Ser Ser
            260                 265                 270

Ile Thr Ala Phe Lys Val Gly Ser Phe Trp Arg Ser Glu Ser Ala Ala
        275                 280                 285

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Tyr Cys Leu Phe Thr Ile Val Leu Ser Thr Tyr Pro Arg Thr Glu Arg
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Gln Asn Gln Ser Val Ser Ser
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<212> PRT
<213> Rattus rattus

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35 40 45

Arg Ser Asn Tyr Phe Phe Leu Asn Leu Ala Ile Ser Asp Phe Phe Val
50 55 60

Gly Val Ile Ser Ile Pro Leu Tyr Ile Pro His Thr Leu Phe Asn Trp
65 70 75 80

Asn Pro Gly Ser Gly Ile Cys Met Phe Trp Leu Ile Thr Asp Tyr Leu
85 90 95

Leu Cys Thr Ala Ser Val Tyr Ser Ile Val Leu Ile Ser Tyr Asp Arg
100 105 110

Tyr Gln Ser Val Ser Asn Ala Val Arg Tyr Arg Ala Gln His Thr Gly
115 120 125

Ile Leu Lys Ile Val Ala Gln Met Val Ala Val Trp Ile Leu Ala Phe
130 135 140

Leu Val Asn Gly Pro Met Ile Leu Ala Ser Asp Ser Trp Lys Asn Ser
145 150 155 160

Thr Asn Thr Glu Glu Cys Glu Pro Gly Phe Val Thr Glu Trp Tyr Ile
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Val Tyr Phe Ser Val Gln Ile Tyr Trp Ser Leu Trp Lys Arg Gly Ser
        195                 200                 205

Leu Ser Arg Cys Pro Ser His Ala Gly Phe Ile Ala Thr Ser Ser Arg
    210                 215                 220

Gly Thr Gly His Ser Arg Arg Thr Gly Leu Ala Cys Arg Thr Ser Leu
225                 230                 235                 240

Pro Gly Leu Lys Glu Pro Ala Ala Ser Leu His Ser Glu Ser Pro Arg
                245                 250                 255

Gly Lys Ser Ser Leu Leu Val Ser Leu Arg Thr His Met Ser Gly Ser
            260                 265                 270

Ile Ile Ala Phe Lys Val Gly Ser Phe Cys Arg Ser Glu Ser Pro Val
        275                 280                 285

Leu His Gln Arg Glu His Val Glu Leu Leu Arg Gly Arg Lys Leu Ala
    290                 295                 300

Arg Ser Leu Ala Val Leu Leu Ser Ala Phe Ala Ile Cys Trp Ala Pro
305                 310                 315                 320

Tyr Cys Leu Phe Thr Ile Val Leu Ser Thr Tyr Arg Arg Gly Glu Arg
                325                 330                 335

Pro Lys Ser Ile Trp Tyr Ser Ile Ala Phe Trp Leu Gln Trp Phe Asn
            340                 345                 350

Ser Leu Ile Asn Pro Phe Leu Tyr Pro Leu Cys His Arg Arg Phe Gln
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Gln Thr Gln Ser Val Ser Ser
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            20                  25                  30

Val Val Val Ile Leu Ala Phe Ile Val Asp Arg Asn Leu Arg His Arg
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65                  70                  75                  80

Ser Gly Lys Gln Ala Cys Val Phe Trp Leu Ile Thr Asp Tyr Leu Leu
                85                  90                  95

Cys Thr Ala Ser Val Tyr Asn Ile Val Leu Ile Ser Tyr Asp Arg Tyr
            100                 105                 110

Gln Ser Val Ser Asn Ala Val Trp Tyr Arg Ala Gln His Ser Gly Thr
        115                 120                 125

Trp Lys Ile Ala Thr Gln Met Val Ala Val Trp Ile Phe Ser Phe Met
    130                 135                 140

Thr Asn Gly Pro Met Ile Leu Ile Ser Asp Ser Trp Gln Asn Ser Thr
145                 150                 155                 160

Thr Glu Cys Glu Pro Gly Phe Leu Lys Lys Trp Tyr Phe Ala Leu Pro
                165                 170                 175

Thr Ser Leu Leu Glu Phe Leu Ile Pro Ile Leu Leu Val Ala Tyr Phe
            180                 185                 190

Ser Ala His Ile Tyr Trp Ser Leu Trp Lys Arg Glu Lys Leu Ser Arg
        195                 200                 205

Cys Leu Ser His Pro Val Leu Pro Ser Asp Ser Ser Ser Ser Asp His
    210                 215                 220

Gly His Ser Cys Arg Gln Asp Pro Asp Ser Arg Ala Thr Leu Pro Ala
225                 230                 235                 240

Arg Lys Glu Thr Thr Ala Ser Leu Gly Ser Asp Lys Ser Arg Arg Lys
                245                 250                 255

Ser Ser Leu Leu Pro Ser Ile Arg Ala Tyr Lys Asn Ser Asn Val Ile
            260                 265                 270

Ala Ser Lys Met Gly Phe Leu Ser His Ser Asp Ser Leu Ala Leu Gln
        275                 280                 285

Gln Arg Glu His Ile Glu Leu Phe Arg Ala Arg Lys Leu Ala Lys Ser
    290                 295                 300

Leu Ala Ile Leu Leu Ala Ala Phe Ala Ile Cys Trp Ala Pro Tyr Ser
305                 310                 315                 320
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Leu Thr Thr Val Ile Tyr Ser Phe Phe Pro Glu Arg Asn Leu Thr Lys
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Ser Thr Trp Tyr His Thr Ala Phe Trp Leu Gln Trp Phe Asn Ser Phe
340 345 350

Val Asn Pro Phe Leu Tyr Pro Leu Cys His Lys Arg Phe Gln Lys Ala
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Arg Ser Ile Ser Thr
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